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Scans for clinic patients may cut heart attack risk, study finds

Routine heart scans for patients referred to cardiac clinics with chest pain could reduce heart attack rates, research suggests.

The scans would help doctors to make better treatment decisions which could ultimately save lives, researchers say.

The SCOT-HEART study, led by the University of Edinburgh, tracked 4000 patients who were referred with symptoms of angina – a condition that restricts the blood supply to the heart.

Half of the patients were given a cardiac CT – computerised tomography – scan in addition to standard diagnostic tests.

Researchers found that around a quarter of patients had their diagnoses reclassified after receiving the scan, prompting new treatments in many cases.

The study also found that the number of heart attacks that occurred in patients who had received the scan dropped by around a third in the subsequent twenty months of follow-up.

Lead researcher, Professor David Newby of the University's Centre for Cardiovascular Science, said: "Our findings are encouraging. However, the overall rate of heart attacks was low and we need to follow them for longer to confirm whether the technology helps to save lives in the long-term."

In a separate study, researchers are to investigate whether giving the scans to all patients who arrive at hospital emergency departments with chest pains can also help to cut heart attack rates.

The £2 million study – funded by the National Institute for Health Research Health Technology Assessment Programme – will be led by researchers at the University of Edinburgh and NHS Lothian.

The RAPID-CTCA trial plans to test whether the scans can detect patients at risk of a heart attack more effectively than current procedures.

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At the moment, heart patients are given an angiogram, which checks the blood flow through their heart to identify any obstructions that could pose a heart attack risk.

Cardiac CT scans enable doctors to look at the blood vessels within the heart more easily. They are around an eighth of the cost of an angiogram and are safer for patients.

Researchers aim to recruit 2,500 patients for the trial, which includes Plymouth University Peninsula Schools of Medicine and Dentistry, Plymouth Hospitals NHS Trust and the University of Sheffield.

Project leader Professor Alasdair Gray, of the University of Edinburgh and NHS Lothian, said: “Cardiac CT scans offer many advantages in helping to diagnose heart disease faster. Our goal is to gather evidence for any clinical and cost benefits of the technology before it is widely adopted by the NHS.”

The results of the SCOT-HEART trial are published today in *The Lancet* journal. The study was funded by the Scottish Government Chief Scientist Office with additional support from Edinburgh and Lothian’s Health Foundation Trust, the Heart Diseases Research Fund and the National Health Service. Professor David Newby is the British Heart Foundation John Wheatley Professor of Cardiology at the University of Edinburgh.

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